

AACTCCTTCTACACCCGAAAGGAATCCTATGACTATCAGGCAGCCTGTGCCCCCTCAGCCTCCTGGGAACC
 TGGGTGCTGCACCCCGGGTGTCTTTGTGCCACCATTGCAGATTTCTTAACCTTGGCCTGGTGGACCTC
 TGCTGCCGCCTGGTCCCTATTCCAGCAGCTACTCTATGGTCTCATCTATCACAGCTGGTTCCAGGCAGAC
 CCGGCAGAAGCTGAGGGCAGCCCCGAGACGCGCGAGAGCAGCTGCGTCATGAAACAGACCCAGTACTACT
 TCGGCTCGGTGAACGCATCCTATAATGCCATCATTGACTGCGGAAACTGCAGCAGGCTGTTCCATGCGCA
 GAGACTGACCAACACCAATCTCCTGTTCTGTGGTGGCCGAGAAGCCGCTGTGCAGCCAGTGCAGGGCGGGC
 CGGCTGCTGCAGAAGGAGACACACTCGGACGGCCCCGAGCAGTGTGAGCTGGTGCAGAGACCGAGATACC
 GAAGAGGTCCGCACATCTGTTTTGACTACAATGCGACGGAAGATACCTCAGACTGTGGCCGCGGAGCCTC
 CTTCCCTCCGTCGCTGGGCGTCTTGGTTTTCTTGCAGCTTTTGTCTCCTCCTGGGCCTGCCACCTCGGCCG
 CAGCCTCAAGTCCACTCCTTCGCTGCCTCTCGCCACCTCTGAGCGACCCACACACACATCATACCCCC
 GCCTTGGCCTCCTAGCCTTTTCGCTCACCTCCCATTCCACATTCCCCAATCTAGAGCCTTGGCCACTCTC
 TCCTGAAGGACCTGGGTCCCTTCCCCCGAGCCTGTGCCTTGGGGCAGGGGAACCCCCAAAGTAAGGTGCC
 ATGGTGTTTGGCACTCAAGATTTAGCTCACCTTGAAGTGTCCAAGTGCCCGCAGTCCCTAGACTCATCC
 CCGTGGGCTAGGACAGGAGGCCACTAGTACTGATGCCAAACCAGGCCTCCACCGACCCACCTGCCTGGAG
 ATTTCTCTATGTAGGCAACCCTGCCACTGCTGGGCACCTCTAACTGGCCCTTTGGCCCCACCCAAGCCC
 AAACCTTACCTTCTCTGGGGGAAAAAAGGAAAGATGGTAATAGTGAGAGATTTCGGGGGGCACCCCTC
 CCCATTGGTTTTCTGGCCCTTTTCAGGCTACAACCCCCCAGCCTTGCAGGTGTCAGAACAGTCTCACAATGA
 CATCAGTTTACACACATGCCATATACACTTGGATCTCTGAGAGCAGAAACCCAACCTCTCACTAGACATAC
 CTGTGATGGAACACACAAACAGACACGCACCATGGGGGGTGGCCACAAAGCCTTACACAAGGCGAGATG
 TCAATGAAGGGGTTGGCCTGTGTGTTCCATCTCTGCTCACCTCTGCCTCTACTCTGAGATGCAGCCTGGC
 TGATCCTCCCATCTCTAAAAGTGAATGTCAAACCGTGCCAAATGCTGGGGGGGGGGGAGACCTCTCTGT
 TTCACCCCTAGCCACCAGTGTCCCCAAGTGCCCTCACCTGCCAGGTGCTCATTGTAACCATCGTTTCAC
 CAGTGTCCGGCCCCCTAGTAGGACCACACATCACTGCCTGAACTCCTTTGGCAGAAGAACCCACCCAGACA
 TTGAGACATTGTATTTTGCCTTAGCAGGGATGAGTTGGTCTCTCCTGGCTGGGCCATCCCATCCCCAATC
 TGGTCTTGCACACTCAGGCCTAATTCCCTCTGCACACACACACACACACACACACACACACACACAC
 ACACACACACAGTCCCTGCCCCCTAGGAGGCCAAATTACCCCTCCCTTGCTGAACACACCCTTGCACCATG
 CACATGTCTAACCAACCGTACTGCACACACAGAGGCTGGACCTGGGACACATCTCTTTACACCTTTCATT
 CTGTCAATTTCTCCCAAAGGCATCGTAACTTGGGGGCCAGGAGGGGACTGAGGGGCAGGGGGGAGGGGTGT
 AGCTGTGAGGCTCAGATGGACTGGGAGGAGGGGGGAGGGTGATACATTAATTAATGGCTTCGTAAATTAA
 TGTCATGTTGCTTGTGCTTTCTCAGTGTGTGTATGGTCCATGCCCAGTGTGGTGACAGGGTGGGTATC
 CATGATGTGTGCCCAGCCTGGATGTGAGCTGTGTCTGTGGGGGCGTGTGTGTAACCTGTAGTGTAGTCAG
 GTGCTCAACGGAGAATATAAACAACAAAAAAGAAACAAACGTATACAGAAAAATAAATGTATATTTTAA
 GTTTAAAGACAAATGAAACCAGACAAAAAATCCCCATCAGGTAGTTGTCCAACCCCCAGCTGGGTTCAA
 CCCCTCTATTACCCACCTGACCTAGCTGTCCCCTTACTGTGGGCTGGGGGACTTGGGGGCCATTTCCCTTT
 GCCCTTTTTTTTTTGTGTTATTCTATTTTGTACAGACAAGTTGGGAAACAACAGCGACAAAAAAGTC
 GAGAACTTTGTAAATATTGTGTGTGTGATTCCCTTGTAATAATTTTCAAATGGTTTATTACAGAAGAT
 CAGTTATTAAATAATGTTTCATATTTTCACTTC (SEQ ID NO:1)

FIGURE 1

NSFYTRKESYDYQAACAPQPPGNLGAAPRGVVFVPTIADFLNLAWWTSAAAWSLFQQLLYGLIYH
SWFQADPAEAEGSPETRESSCVMKQTQYYFGSVNASYNAIIDCGNCSRLFHAQRLTNTNLLFVV
AEKPLCSQCEAGRLLQKETHSDGPEQCELVQRPRYRRGPHICFDYNATEDTSDCGRGASFPPSL
GVLVSLQLLLLLGLPPRPQPQVHSFAASRHL (SEQ ID NO:2)

FIGURE 2

underlined = deleted in targeting construct

BOLD = sequence flanking Neo insert in targeting construct

A**A****C****T****C****C****T****T****C****T****A****C****A****C****C****C****G****A****A****G****G****A****A****T****C****C****T****A****T****G****A****C****T****A****T****C****A****G****G****C****A****G****C****C****T****G****T****G****C****C****C****C****T****A****G****C****C****T**
C**C****T****G****G****G****A****A****C****C****T****G****G****G****T****G****C****T****G****C****A****C****C****C****C****G****G****G****T****G****T****C****T****T****T****G****T****G****C****C****C****A****C****C****A****T****T****G****C****A****G****A****T****T****C****C****T**
A**A****C****T****T****G****G****C****C****T****G****G****T****G****A****C****C****T****C****T****G****C****T****G****C****C****G****C****C****T****G****G****T****C****C****T****A****T****T****C****C****A****G****C****A****G****C****T****A****C****T****A****T****G****G****T**
C**T****C****A****T****C****T****A****C****A****G****C****T****G****G****T****T****C****C****A****G****G****C****A****G****A****C****C****C****G****C****A****G****A****G****C****T****G****A****G****G****G****C****A****G****C****C****C****C****G****A****G****A****C**
CGCGAGAGCAGCTGCCGTCAAGAAACAGACCCAGTACTACTTCGGCTCGGTGAACGCATCC
TATAATGCCATCATTGACTGCGGAACTGCAGCAGGCTGTTCCATGCGCAGAGACTGACC
AACACCAATCTCCTGTTCTGTTGGTGGCCGAGAAGCCGCTGTGCAGCCAGTGCAGGGCGGGC
CGGCTGCTGCAGAAGGAGACACACTCGGACGGCCCCGGAGCAGTGTGAGCTGGTGCAGAGA
CCGAGATACCGAAGAGGTCCGCACATCTGTTTTGACTACAATGCGACGGAAGATACCTCA
GACTGTGGCCGCGGAGCCTCCTTCCCTCCGTCGCTGGGCGTCTTGGTTTCCTTGCAGCTT
TTGCTCCTCCTGGGCTTGGCCTCGCCACCTCGGCGCAGCCTCAAGTCCACTCCTTCGCTGCCTCT
CGCCACCTCTGAGCGACCCACACACACATCATAACCCCGCCTTGGCCTCCTAGCCTTT
CGCTCACCTCCCATTCCACATTCCCCAATCTAGAGCCTTGGCCACTCTCTCCTGAAGGA
CCTGGGTCCCTTCCCCCGAGCCTGTGCCTTGGGGCAGGGGAACCCCAAAGTAAGGTGCC
ATGGTGTTTGGCACTCAAGATTTAGCTCACCTTGAAGTGTCCAAGTGCCCGCAGTCCCT
AGACTCATCCCCGTGGGCTAGGACAGGAGGCCACTAGTACTGATGCCAAACCAGGCCTCC
ACCGACCCACCTGCCCTGGAGATTTCCCTCTATGTAGGCAACCCTGCCACTGCTGGGCACCT
CTAAGTGGCCCTTTGGCCCCACCCAAGCCCAAACTTACCTTCTCTGGGGGAAAAAAAAAG
GAAAGATGGTAATAGTGAGAGATTGGGGGGCACCCCTCCCCATTGGTTTCTGGCCCTT
TCAGGCTACAACCCCCAGCCTTGCAGGTGTGAGAAGTCTCACAATGACATCAGTTTA
GACACATGCCATATACACTTGGATCTCTGAGAGCAGAAACCCAACCTCTCACTAGACATAC
CTGTGATGGAACACACAAACAGACACGCACCATGGGGGGTGGCCACAAAGCCTTACACA
AGGCGAGATGTCAATGAAGGGGTGGCCCTGTGTGTTCCATCTCTGCTCACCTCTGCCCTCT
ACTCTGAGATGCAGCCTGGCTGATCCTCCCATCTCTAAAACTGAATGTCAAACCGTGCCA
AATGCTGGGGGGGGGGGAGACCTCTCTGTTTACCCCTAGCCACCAAGTGTCCCCAAGTG
CCCCTCACCTGCCAGGTGCTCATTGTAACCATCGTTACCAAGTGTCCGGCCCCCTAGTAG
GACCACACATCACTGCCCTGAAGTCCCTTTGGCAGAAGAACCCACCAGACATTGAGACATT
GTATTTTGCCTTAGCAGGGATGAGTTGGTCTCTCCTGGCTGGGCCATCCCATCCCCAATC
TGGTTCTTGCACACTCAGGCCTAATTCCTCTGCACACACACACACACACACACACACAC
ACACACACACACACACACAGTCCCTGCCCTAGGAGGCCAAATTACCCCTCCCTTGCT
GAACACACCTTGCACCATGCACATGTCTAACCAACCGTACTGCACACACAGAGGCTGGA
CCTGGGACACATCTCTTACACCTTTCATTCTGTCAATTTCTCCAAAGGCATCGTAACCT
GGGGGCCAGGAGGGGACTGAGGGGCAGGGGGGAGGGGTGTAGCTGTGAGGCTCAGATGGA
CTGGGAGGAGGGGGGAGGGTGATACATTAATTAATGGCTTCGTTAATTAATGTCATGTTG
CTTGTTGCTTTCTCAGTGTGTGTATGGTCCATGCCAGTGCTGGTGACAGGGTGGGTATC
CATGATGTGTGCCAGCCTGGATGTGAGCTGTGTCTGTGGGGGCGTGTGTGTAACGTGA
GTGTAGTCAGGTGCTCAACGGAGAATATAAAACAAAAAAAAAAGAAACAAACGTATACAGA
AAAATAAATGTATATTTAAGTTTAAAGACAAATGAAACCAGACAAAACAATCCCCATCA
GGTAGTTGTCAACCCCCAGCTGGGTTCACCCCTCTCATTACCCACCTGACCTAGCTGTC
CCCTTACTGTGGGCTGGGGGACTTGGGGGCCATTTCTTTGCCCTTTTTTTTTTGTGTGTTA
TTCTATTTTGTACAGACAAGTTGGGAAAAACAACAGCGACAAAAAAAGTCGAGAACTTT
GTAAATATTTGTGTGTGTGATTCCCTTGTAATATTTTCAAATGGTTTATTACAGAAGAT
CAGTTATTAAATAATGTTTCATATTTTCACTTC

FIGURE 3

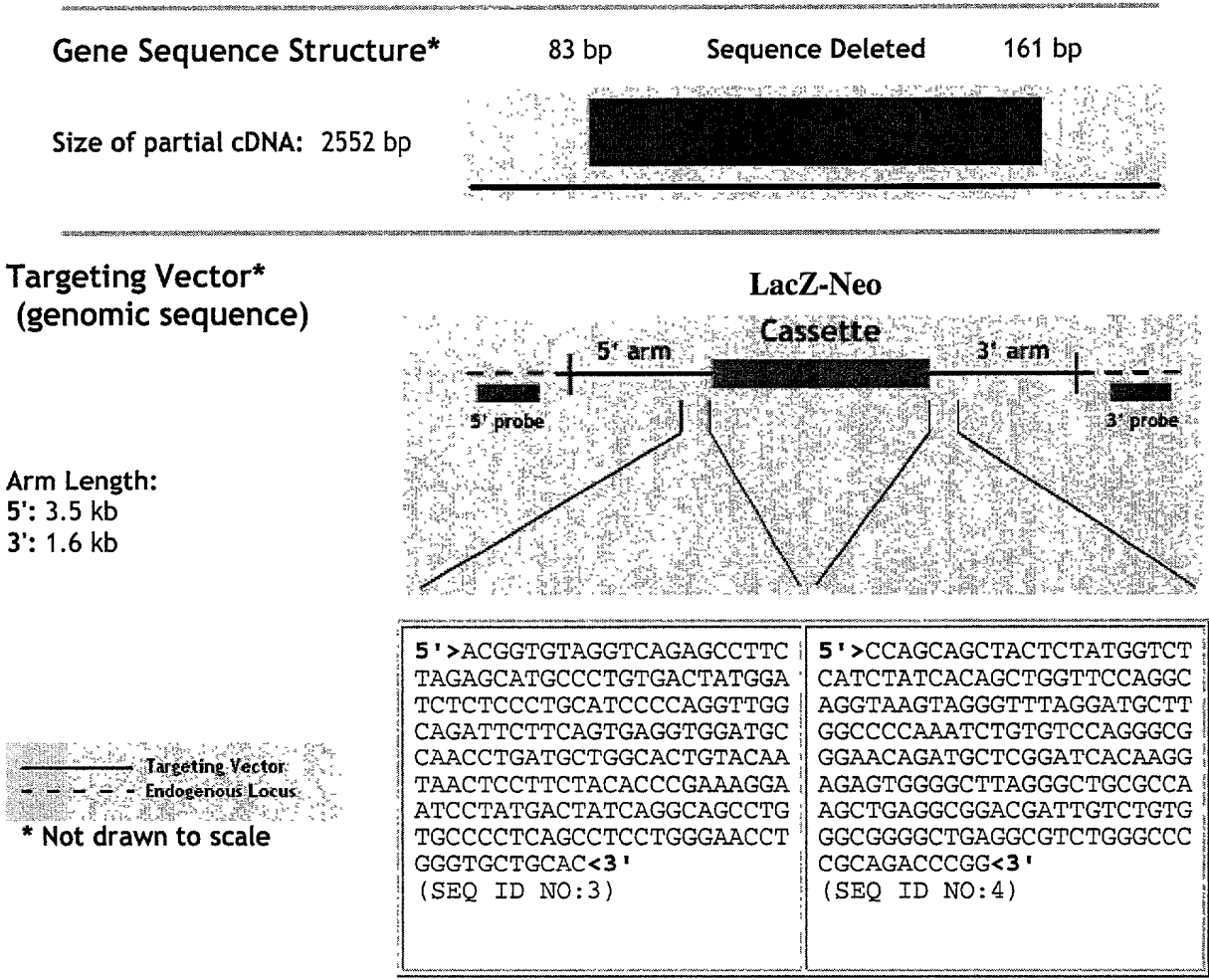


FIGURE 4